

Assessment Forest Plan Revision

Final Infrastructure Report

Prepared by:

Dave Shimik, Civil Engineer
Jonathan Kempff, Forest Engineer

for:

Custer Gallatin National Forest

February 16, 2017

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Infrastructure

Introduction

A draft of this report was released for public review on November 30, 2016 and feedback was requested by January 6, 2017. Changes made to the final report based on public feedback were to reference specialist reports which discuss impacts of infrastructure on other resources.

Infrastructure is the built property created to support the management and utilization of National Forest System lands. The categories of infrastructure covered in this section include National Forest System roads, road and trail bridges, dams, administrative facilities, and recreation facilities, such as recreation buildings, cabin rentals, water systems, and waste water systems.

Process and Methods

The infrastructure section first describes the transportation system, followed by administrative facilities, recreation facilities, dams, and finally aviation facilities.

Scale

The geographic scale for assessing the infrastructure assets in the Custer Gallatin planning area was attained at both a Custer Gallatin-wide and a landscape-area scale. Where possible the information is presented by landscape area.

Existing Information Sources

The existing information that is available to complete the analysis for the forest plan assessment effort includes a wide range of documentation including but not limited to:

- INFRA database modules that hold corporate data on infrastructure
- Spatial information in the geographic information system (GIS) data and feature classes
- The following completed travel management plans
 - Beartooth Travel Plan (2008)
 - Ashland Travel Plan (2009a)
 - Sioux Travel Plan (2009b)
 - Gallatin National Forest Travel Management Plan (2006)

Current Forest Plan Direction

The 1986 Custer National Forest Plan and the 1987 Gallatin National Forest Plan both describe Custer Gallatin-wide and management area-specific goals, objectives, and standards related to management of a variety of resource values found within the respective planning areas, including facilities.

The Custer National Forest Plan was amended and road-specific information for the Beartooth District was removed and incorporated into the Beartooth Travel Management Decision. The Sioux and Ashland Districts did not have road specific management direction in the forest plan.

The Gallatin National Forest Plan was amended during their transportation planning effort. All transportation management was removed from the forest plan and incorporated into the travel management decision.

Existing Condition

National Forest Transportation System

The transportation system for the plan area is defined as the system of National Forest System roads, trails, and airfields located on National Forest System lands (36 CFR 212.1). The ground transportation system is made up of a network of roads and trails that provide access throughout the forests. The need for the roads and trails within the transportation system is determined through processes outlined in the Travel Management: Designated Routes and Motor Vehicle Use, Final Rule (36 CFR Parts 212, 251, 261, and 295). Implementation of the Travel Management Rule is outlined in Forest Service Manual (FSM) 7700 -Transportation System, Chapter 7730— Transportation System Operation and Maintenance and in Forest Service Handbook (FSH) Handbook 7709.58 Transportation System Maintenance.

National Forest System roads are those roads the Forest Service has determined necessary for the protection, administration, and utilization of National Forest System land and the use and development of its resources. National Forest System roads are under the jurisdiction of the Forest Service and are located on or provide access to National Forest lands. These roads are a part of a network of an overall transportation system that is managed jointly with other public road agencies such as states, counties and municipalities. This network, when combined, provides access to National Forest System lands.

National Forest System roads are designated, constructed, and maintained for their intended use. Identification of intended use of a road helps to define the road design and maintenance standards for each road. Roads are generally constructed and maintained wide enough (greater than 12 feet) for typical cars and trucks. Roads are built to grades usually less than 12 percent to allow grade-ability for most highway vehicles. The Forest Service uses five maintenance levels to define the general use and type of maintenance. In general, the five maintenance levels can be described as:

- ML 1. These are roads that have been placed in storage between intermittent uses. The period of storage must exceed 1 year. Basic custodial maintenance is performed on ML 1 roads to prevent damage to adjacent resources and to perpetuate the road for future resource management needs. Emphasis is normally given to maintaining drainage facilities and runoff patterns. Planned road deterioration may occur at this level.
- ML 2. These are roads that are open for use by high clearance vehicles. ML 2 roads are not designed for passenger car traffic, user comfort, or user convenience, and warning signs and traffic control devices are generally not provided on these roads. Motorists should have no expectations of being alerted to potential hazards while driving ML 2 roads. Traffic is normally minor and usually consists of a combination of administrative, permitted, dispersed recreation, or other specialized uses.
- ML 3. These are roads that are open and maintained for travel by a prudent driver in a standard passenger car; however, user comfort and convenience are not considered priorities in maintenance of the road. ML 3 roads are typically designed for low vehicular speed and are relatively narrow with single lanes and turnouts to provide passage of cars.
- ML 4. These are roads that provide a moderate degree of user comfort and convenience when traveling at moderate speeds. These roads are generally designed as double lane with an

aggregate surface; however, some ML 4 roads may be single lane. Some ML 4 roads may be paved and/or treated with dust abatement.

- ML 5. These are roads that provide a high level of user comfort and convenience. ML 5 roads are normally double lane, paved facilities; however, some may be aggregate surfaced and treated with dust abatement.

Within the planning area, there are approximately 1,442 miles of road open for public use either seasonally or year-round. Roughly 778 miles of these roads are ML 2 roads and 664 miles are ML 3, ML 4, or ML 5. There are approximately 183 miles of ML 1 roads that are roads in storage. Additionally, there are 1,445 miles of National Forest System roads within the plan area that are currently open to administrative uses only including permitted use (closed to public motorized use). These administrative roads open to administrative use are typically ML 2 roads.

There is an unknown number of user-created routes on the Ashland Ranger District and possibly on other districts, many of which follow pipeline corridors or lead to water tanks and livestock mineral licks. Many of these access points were documented on the Ashland Ranger District in a 2015 effort to locate the user-created routes. These additional routes do not have route numbers or lengths in miles. They are also traveled extensively during hunting seasons. These roads are not legally traveled and do not appear on the Motor Vehicle Use Map or are “administratively open.”

Overall, ML 3–ML 5 roads are collectively maintained for travel by a prudent driver in a standard passenger car and they fall under the requirements of the National Highway Safety Act and the Manual of Uniform Traffic Control Devices. On all ML 3–ML 5 roads, warning signs and traffic control devices are provided to alert motorists of situations that may violate expectations.

Table 1 provides information related to the distribution of roads by maintenance level and landscape areas within the plan area. Note that some roads under the jurisdiction of the Forest Service fall outside of the landscape area boundaries. These roads are owned and/or maintained by the Forest Service on private lands, have easements in place with private land owners, or are situations where necessary easements are being pursued by the Forest Service.

Table 1. Overview of miles of National Forest System roads by operational maintenance level open to the public

Landscape Area	ML 1	ML 2	ML 3	ML 4	ML 5	Total¹
Madison, Henrys Lake, Gallatin, Absaroka, Beartooth	0	439	339	59	18	855
Pryor	0	53	19	0	0	72
Ashland	0	72	69	0	0	141
Sioux	0	126	82	0	0	208
Bridger, Bangtail, Crazy	0	88	71	1	5	165
Total Miles	0	778	580	60	23	1,442

¹ All road mileages are approximate.

Table 2. Overview of miles of National Forest System roads by operational maintenance level administrative use

Landscape Area	ML 1	ML 2	ML 3	ML 4	ML 5	Total¹
Madison, Henrys Lake, Gallatin, Absaroka, Beartooth	6	402	1	0	0	855
Pryor	76	12	0	0	0	72
Ashland	88	551	6	0	0	141
Sioux	13	212	1	0	0	208
Bridger, Bangtail, Crazy	0	77	0	0	0	165
Total Miles	183	1,254	8	0	0	1,445

¹ All road mileages are approximate.

The total number of miles of National Forest System roads within the plan area has been generally declining. Miles of road decommissioning has become an assigned accomplishment target. The roads that have been decommissioned were routes that were no longer needed or routes that were decommissioned to eliminate resource damage.

The Aquatic and Riparian Ecosystems report (Barndt et.al, 2017) describes road and trail maintenance as a stressor on watershed condition. The Nonforested Terrestrial Ecosystems report (Reid 2017) discusses road impacts.

Travel Analysis Process

The Forest Service is using the minimum roads assessment to verify that every road on the forest has been analyzed, including their purpose and needs. The roads travel analysis process has been completed for the entire Custer Gallatin planning area. The roads travel analysis lists those roads that will be considered a part of the future NFS road system and those that may be eliminated or decommissioned. The opportunities identified within the travel analysis process support objectives of relevant land and resource management plans.

Roads and Trails Travel Planning Process

The travel planning process was used to determine which roads and trails were to be open and available for public use. It also determined which routes across the Custer Gallatin would be motorized and non-motorized. This process included extensive public scoping and public involvement throughout the process. The completed travel plans are listed in the literature portion of this report. For additional information, see chapter 7 and the discussion on recreation access.

Road Maintenance Practices and Policies

The amount of maintenance the roads receive annually varies widely. Some of the roads are in poor locations, which increases maintenance needs and the risk that sediment from the road surface could enter the adjacent streams. The Forest Service works to prioritize road maintenance in annual maintenance plans. These plans are based on projected budgets, the amount of traffic individual roads receive, current road condition, and damage created by environmental factors such as flooding and erosion.

The Forest Service uses the best science available when implementing construction and maintenance activities. All maintenance and improvement activities comply with the procedures outlined in the National Best Management Practices for Water Quality Management on National Forest System land dated April 2012.

Additionally, road maintenance guidelines are described in Forest Service Handbook 7709.58 Transportation System Maintenance Handbook and Forest Service Manual 7700 -Transportation System, Chapter 7730– Transportation System Operation and Maintenance.

Road Maintenance Funding

Road maintenance dollars are allocated to each national forest based on the national model with each national forest getting their weighted share based on roaded land area and recreation visitor use. Each national forest is given targets for passenger car and high clearance miles of maintenance and is expected to meet those targets with the allocated funds. Within the national forest, funds are allocated each year based on targets and by priorities set by the line officers in conjunction with the engineering staff. Additional maintenance can be accomplished using other funding such as funding allocated for watershed improvements and funding through partnerships (although limited) and special project work. There is no separate funding source allocated for decommissioning.

Types of funds available for road-related project work include:

- Capital investment projects,
- Legacy roads and trails funding for implementing road best management practices,
- Providing aquatic organism passage, and replacing bridges,
- Federal Lands Highway Funds,
- Resource advisory committee funding.

The capital investment project funding and the resource advisory committee funds are awarded through a competitive process and, as such, are not a stable source of funding. Federal highway funds are project based and are also not a stable funding source.

Table 3 summarizes total Custer Gallatin National Forests funding received from 2008 to 2015.

Table 3. Roads maintenance funding from 2008 to 2015 (in thousands)¹

Area	Fund Type	2008	2009	2010	2011	2012	2013	2014	2015
Custer	Operations and Maintenance	\$461.0	\$529.0	\$481.0	\$343.5	\$340.5	\$328.7	\$0.0	\$0.0
	Capital Investment Projects	\$23.0	\$0.0	\$400.0	\$0.0	\$0.0	\$20.0		
Gallatin	Operations and Maintenance	\$524.0	\$568.5	\$699.0	\$637.7	\$679.6	\$646.0		
	Capital Investment Projects	\$268.0	\$30.0	\$145.0	\$110.0	\$0.0	\$0.0	\$0.0	\$0.0
Custer Gallatin	Operations and Maintenance							\$899.7	\$923.5
	Capital Investment Projects							\$17.0	\$328.0
	Total Funding	\$1,276.0	\$1,127.5	\$1,725.0	\$1,091.2	\$1,020.1	\$994.7	\$916.7	\$1,251.5

¹ Budget figures represent a combination of funding dollars from multiple source codes.

Important Roads Adjacent to the Forest

Access to national forest lands is generally provided by a seamless transportation system under the jurisdiction (ownership) of multiple public road agencies. These include Federal highways, such as the Interstate system, state highways, county highways and roads, municipal surface streets, and other Federal road agencies such as the Forest Service or the Bureau of Land Management. At virtually every level, there is some form of cooperation between these road agencies. They share maintenance and improvement schedules, allow guide and destination signing to be placed across the system, and even share in maintenance work where cost efficiencies can be found. A seamless transportation network is critical for the efficient and safe movement of people, goods, and services—particularly emergency services.

Outside of the National Forest System of roads for which the Forest Service has jurisdiction, the Forest Service has identified the “shared-interest” transportation routes that connect the forest roads to the broader transportation network. These are mostly county roads and state and Federal highways. The mechanism for cooperation with counties is a “Schedule A Agreement”. This agreement identifies the county and national forest roads that comprise the primary access network to the national forest. The maintenance and improvements to this network may be shared by mutual agreement. In most cases this cooperation provides a more seamless, efficient, and cost effective road system. The cooperation with the highway systems is generally less hands-on than the county systems, but are no less necessary. These agreements generally consist of authorizations for encroachments for road approaches to the highway and directional signing installations within the highway corridor.

Without these shared transportation systems, it would be impossible for the Forest Service to access and manage the National Forest System lands.

The following maps show the level of road system necessary to provide access to the national forest and the road agencies needed to maintain this extensive system.

Trends and Drivers

Road appropriations are the primary sources for annual road maintenance. The remaining funds go towards road reconstruction and capital improvement type projects with road maintenance and improvements occurring in conjunction with the improvement activity. For example, a bridge or culvert replacement project will necessarily include a short segment of road maintenance and improvements on both sides of the crossing.

The overall trend affecting the transportation system is that funding for repairs and maintenance are expected to continue to decrease while national requirements and efforts for planning and maintenance continue to increase. During the past two decades, appropriated funding for road construction and maintenance has decreased while the Custer Gallatin is spending more funds to meet safety standards, implement resource protection measures, and complete agency-required planning efforts.

Off-road impacts are being addressed through site-specific travel planning processes with restrictions imposed based on the sensitivity of the land and the level of resource damage that is taking place. Routes suitable for motorized mixed use are evaluated through an engineering analysis conducted by the Custer Gallatin engineer and are completed independent of the travel planning efforts.

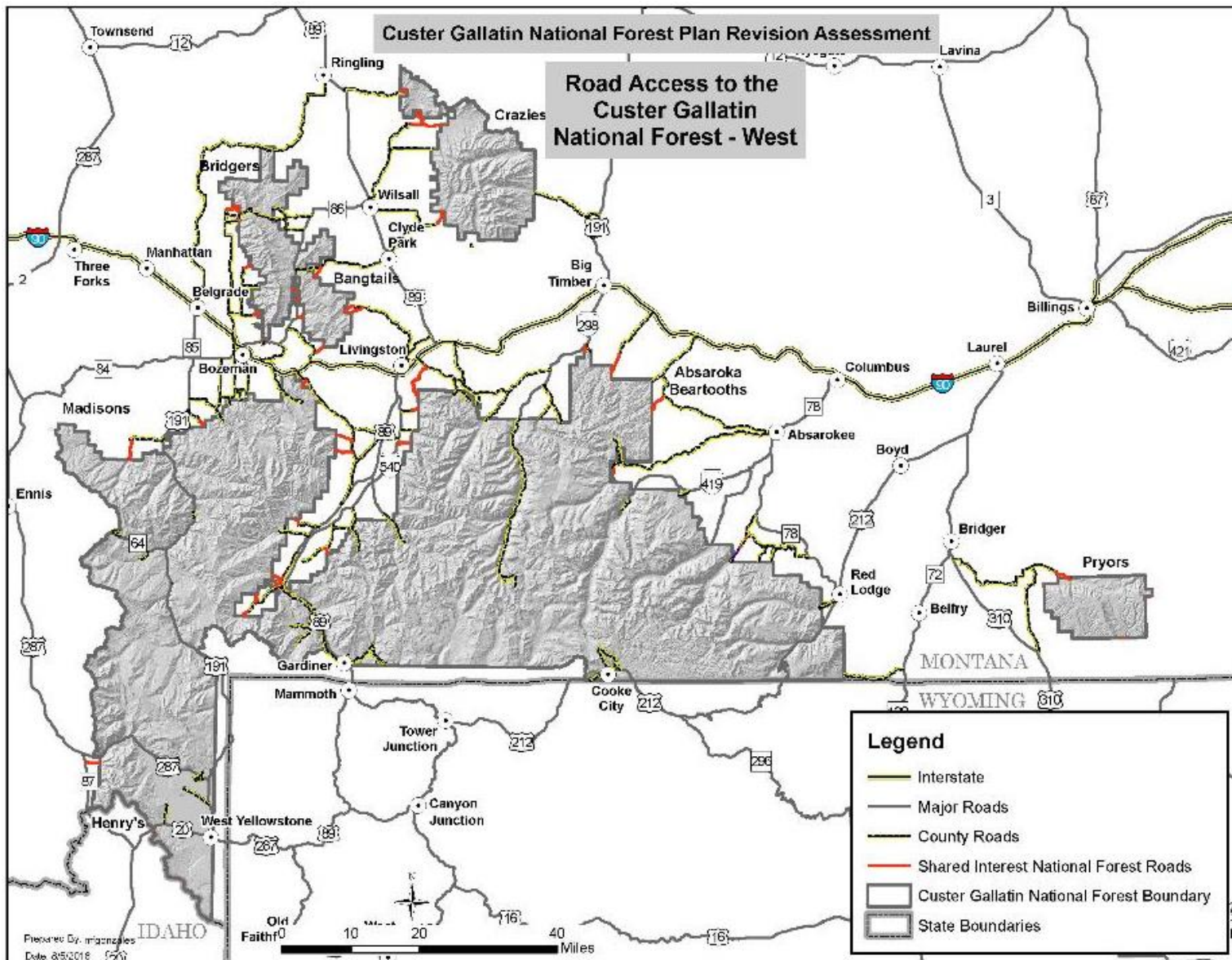


Figure 1. Road access to the Custer Gallatin, west side

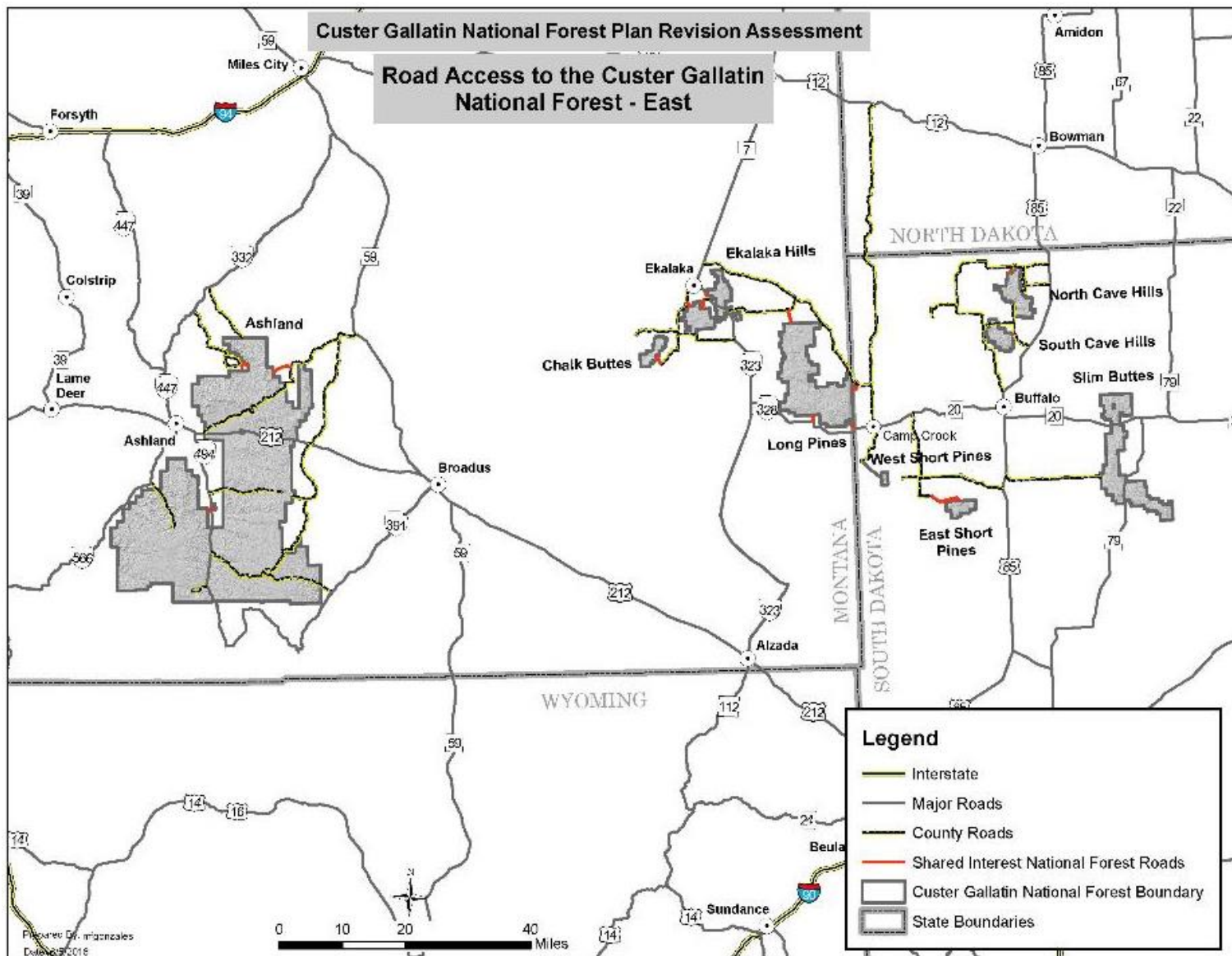


Figure 2. Road access to the Custer Gallatin, east side

Information Needs

Data on traffic volume would be desirable to help determine average daily traffic and to show use patterns. Deferred maintenance costs may be useful to show funding trends and road maintenance needs. There is also a need to coordinate the INFRA databases for consistency in reporting numbers. A final information need is the extent at which user-created roads are out in the field.

Road Bridges

Existing Information

There are approximately 85 road bridges under the jurisdiction of the Forest Service within the Custer Gallatin planning area. The majority of these structures meets or exceeds the minimum criteria for bridge condition. Very few of these bridges (approximately eight) are at intolerable or at a minimum tolerable limit for condition. Management of the bridge program and inspection responsibilities and authorities are found in FSM 7730, FSM 7709 and 23 CFR 650.

Forest Service policy requires 2-year inspections on every bridge under Forest Service jurisdiction. Bridges must be repaired and replaced with road maintenance funding with a small number of structures being replaced through the capital investment program.

Existing Condition

Many bridges within the planning area were constructed to support the timber program and are over 30 years old. Older bridges were often built with the abutments at the very edge of streams, often encroaching on the stream, and are no longer in compliance with best management practices. Table 4 describes the number of bridges within the planning area, the district in which they are located, and information concerning the condition of these structures.

Trends and Drivers

The Custer Gallatin planning area has an active bridge replacement program. This program aims to replace under-sized culverts and bridges with new and different structures that allow for aquatic organism passage. In many instances, safe design practices, that also meet best management practices, dictate that the only suitable replacement structure for a site is a bridge. The result is a potentially increasing inventory of bridges in need of maintenance.

Table 4. Road bridge location and condition in the Custer Gallatin planning area

District	2 Intolerable: Requires High Priority Replacement	3 Intolerable: High Priority Corrective Action	4 Meets Minimum Tolerable Limit	5 Somewhat Better than Minimum Adequacy	6 Equal to Minimum Criteria	7 Better than Minimum Criteria	8 Equal to Desirable Criteria	9 Superior to Desirable Criteria	Totals
Beartooth	2			2	15	5	3	4	31
Ashland									0
Sioux									0
Gardiner						3	1		4
Yellowstone	1		3		4	6	5	4	23
Bozeman		1	1	3	4	8	4	1	22
Hebgen Lake				1		2	2		5
Totals	3	1	4	6	23	24	15	9	85

Trail Bridges and Structures

Existing Information

A trail bridge is a trail structure, including supports, erected over a depression or obstruction such as water, roadway, trail or railway that provides a continuous pathway and has a deck for carrying traffic or other loads. There are currently 80 trail bridges within the Custer Gallatin planning area many of which are within wilderness areas. Trail bridges are divided into three classifications for inspection purposes: complex trail bridges, major trail bridges, and minor trail bridges.

Complex Trail Bridges. All trusses, suspension, multiple-span, and non-timber/log trail bridges with a span greater than 20 feet and a vertical distance greater than 5 feet are considered to be complex trail bridges.

Major Trail Bridges. All single-span timber/log trail bridges with a span greater than 20 feet and a vertical distance greater than 5 feet are considered major trail bridges.

Minor Trail Bridges. All trail bridges that do not meet the definition of a complex or major trail bridge, and that have a span less than 20 feet or a vertical distance less than 5 feet are considered a minor trail bridge.

Existing Condition

Table 5 lists the trail bridges located within the Custer Gallatin planning area and the district that each are located within

Table 5. Trail bridges by category and district

District	Complex Trail Bridge	Major Trail Bridge	Minor Trail Bridge	Not Identified	Totals
Beartooth		7	8	9	24
Ashland					0
Sioux					0
Gardiner	2	3	1		6
Yellowstone	6	9	1		16
Bozeman	3	14	14		31
Hebgen Lake	1	1	1		3
Total	12	34	25	9	80

There are other built structures along trails that are considered to be a part of the infrastructure of the trail systems. Constructed features on trails, such as puncheon, boardwalk, retaining walls, and water bars, are located along within the profile of the trail. Other structures, such as fishing docks, viewing and platforms, are built structures located on or adjacent to trails. These larger features are often engineered similarly to a bridge, and often involve moderate-to-high risk to users in the event of structural failure. They do not meet the definition of a continuous pathway and are often considered destination points instead.

Trail bridges and structures within the Custer Gallatin planning area are in various conditions and detailed inspections regarding these conditions are stored in Forest Service files at district offices. Trail bridge structures are inspected on a 5-year cycle by qualified personnel.

Trends and Drivers

Maintenance funding for trail bridges and structures comes from within the trails budget. As those budgets flex, so does the ability to properly maintain trail bridges and structures.

Administrative Facilities

Existing Information

The management of buildings and other structures is found in FSM 7310. The Custer Gallatin National Forest is mandated to develop a facilities master plan as a guide to facilities planning. These documents are continuously updated in response to changes in the facilities and the expected use of the facility.

Each national forest, national grassland, and research station must have a facilities master plan depicting facility locations (FSM 1241), unit standards (FSM 1243), existing and proposed buildings, and related improvements. Detailed requirements are listed in FSH 7309.11, section 22. Use Engineering Management (EM) publication, EM-7310-4, "Facilities Planning," as a guide in facilities planning. This publication is available in electronic format and may be retrieved from the Forest Service National Headquarters, Engineering Staff web page (on the FS Web/Intranet).

Administrative facilities are typically buildings and their appurtenances necessary to support the employees, equipment, and activities necessary for the management of the national forests. These are commonly called "fire, administrative, and other" (FA&O). Administrative facilities are separate from recreation facilities. Administrative facilities include fire stations, offices, warehouses, and shops, as well as living quarters such as barrack and individual residences. Living quarters are partially supported by rental receipts, while administrative facilities and other facilities are financially supported through annual budget appropriations.

Existing Condition

There is one supervisor office, located in Bozeman, Montana, that serves the Custer Gallatin planning area. The office is a leased facility. There are seven ranger district offices dispersed throughout the forests. The Beartooth Ranger District, the Ashland Ranger District, the Sioux Ranger District, the Gardiner Ranger District, the Yellowstone Ranger District, the Bozeman Ranger District and the Hebgen Lake Ranger District.

The current building inventory as of January 2015 lists 199 Forest Service-owned fire administrative and operations (FA&O) buildings. The focus of the forests is the maintenance or replacement of existing forest facilities that do not meet current operational standards, and the disposal of those facilities that are considered surplus to the Custer Gallatin's FA&O operational needs. There is a great amount of deferred maintenance associated with FA&O buildings.

Funding for Administrative Facilities

Table 6 shows the annual facility maintenance funding trend over the past 5 years. Budgets for the Custer Gallatin were combined in 2014 during the Custer Gallatin consolidation.

Table 6. Annual facility maintenance funding trends (in thousands) from 2011 to 2015

Fiscal Year	Custer	Gallatin	Custer Gallatin	Combined Funding
2011	\$160.0	\$184.0		\$344.0
2012	\$235.9	\$217.6		\$453.5
2013	\$235.9	\$218.7		\$454.6
2014			\$376.8	\$376.8
2015			\$359.8	\$359.8

Trends and Drivers

The backlog of building deferred maintenance exceeds the funding available. Currently the Custer Gallatin National Forests are working aggressively to reduce deferred maintenance. Use of partnerships is beneficial for completing necessary work on structures; however, partner contributions rarely make up for budget short fall.

Information Needs

There are noted data gaps in the facilities area in the National Resource Management database such as latitude and longitude for structures.

Recreation Facilities

Existing Information

Recreation facilities are buildings, cabins, water, and wastewater systems that are operated and maintained specifically to support public recreational use. These recreation facilities are often located at developed recreation sites, such as campgrounds, day use areas, and interpretive sites, where recreation use requires a management investment in order to operate and/or maintain the site to health and safety standards.

The inventory of developed recreation sites and recreational structures is held in the INFRA database. Condition surveys are completed on every structure and within every developed recreation sites on a five year cycle. Those condition surveys are recorded in the INFRA database.

Existing Condition

These sites range in size and category from developed campgrounds and picnic areas, to small interpretive sites with signs and interpretation. These developed sites may contain site features such as signs, tables, fire rings, and parking barriers.

Larger infrastructure elements such as toilet buildings, picnic shelters, cabins, lookouts, and water and wastewater systems are also located within these developed recreation sites. There are 427 buildings that are classified as recreation facilities across the planning area. There are 35 buildings used for cabin rentals, 324 toilet buildings, and 68 other buildings such as picnic shelters, barns, and pump houses. This assessment includes information on these recreation facilities but does not include information on the minor infrastructure features identified above.

Recreation Buildings

Cabin Rentals

There are 27 cabin and lookout rentals within the planning area. These are available through the National Recreation Reservation System and have a varying degree of popularity. More information is in the Recreation Settings, Opportunities and Access report (Oswald 2016).

Toilet Buildings

These buildings are primarily located within developed recreation sites; however, a growing percentage of them are being placed in heavily used dispersed recreation sites to take care of sanitation issues that are occurring in these heavily used areas.

Table 7. Toilet buildings¹

Landscape Area	Toilet Buildings
Pryors	Included in Beartooth numbers
Ashland	10
Sioux	10
Bridger, Bangtail, Crazy	14
Madison, Henry, Gallatin, Absaroka, Beartooth	290
Total	324

1. Information is derived from INFRA.

Water and Waste Water Systems

The Custer Gallatin maintains 82 water systems across the planning area. There are also 36 waste water systems maintained by the Forest Service across the planning area.

Recreational Facilities Funding

Recreation facility maintenance is funded from a variety of sources. Traditionally, maintenance of recreation facilities is funded by facilities construction and maintenance appropriated funds. These allocations to the forests have been decreasing over the past several years. The deferred maintenance on recreation facilities exceeds the funding available. The forests are using the limited funds for repairs using priorities established by the forests. For more details on the funding stream for recreation please see, chapter 7, "Recreation Settings, Opportunities, Access and Scenic Character." Table 8 shows the amount of funding received for the past 5 years for recreational facilities:

Table 8. Recreation facilities funding (in thousands)

Area	Funding Type	2011	2012	2013	2014	2015
Custer	Recreation Facility Maintenance	\$105.0	\$80.0	\$79.6		
	Recreation Capital Investment Projects	\$0.0	\$0.0	\$0.0		
Gallatin	Recreation Facility Maintenance	\$190.0	\$169.9	\$140.0		
	Recreation Capital Investment Projects	\$115.0	\$0.0	\$50.0		
Custer Gallatin	Recreation Facility Maintenance				\$205.4	\$206.0
	Recreation Capital Investment Projects				\$0.0	\$0.0
	Total Recreation Funding	\$410.0	\$249.9	\$269.6	\$205.4	\$206.0

Trends and Drivers

As recreational use increases within the plan area the forests make every effort to keep recreational facilities in operating condition and eliminating structures that are not necessary. Recreational facilities are inventoried and inspected on a 5 year cycle and deferred maintenance items identified and documented in the IRM database.

Facilities, Dams

Existing Information

There are six Forest Service owned dams in the Custer Gallatin planning area identified in the INFRA database. These dams are inspected by the Forest Service or by private contractor. The Forest Service policy for the operations and maintenance of dams is held under FSM 7500-Water Storage and Transmission.

Existing Condition

Table 9 shows the list of dams that are located within the Custer Gallatin planning area. These dams are maintained and operated by the Forest Service, or by private entities. The records for these dams are held at the supervisor's office and in the INFRA database.

Table 9. List of dams by landscape area

Landscape Area	Dam Name	Operation Condition	Owner/Operator	Hazard Classification
Ashland	Blacks Pond Dam	Fully operational	USDA Forest Service	Low
Ashland	Cow Creek Reservoir	Fully operational	USDA Forest Service	Undetermined
Sioux	Browns Pond Dam	Fully operational	USDA Forest Service	Significant
Sioux	Rabbit Creek Dam	Fully operational	USDA Forest Service	Significant
Sioux	Road Draw Dam	Fully operational	USDA Forest Service	Low
Sioux	Schleichert DU Dam	Fully operational	USDA Forest Service	Low
Pryor	NA	NA	NA	NA
Bridger, Bangtail, Crazy	NA	NA	NA	NA
Madison, Henrys Lake, Gallatin, Absaroka, Beartooth	Hyalite/Middle Creek Dam	Fully operational	DNRC	Data gap
Madison, Henrys Lake, Gallatin, Absaroka, Beartooth	Hebgen Dam	Fully operational	Northwest Energy	Data gap
Madison, Henrys Lake, Gallatin, Absaroka, Beartooth	Mystic	Fully operational	Northwest Energy	High
Madison, Henrys Lake, Gallatin, Absaroka, Beartooth	Glacier	Fully operational	Rock Creek Water Users Association	High

Notes:

Blacks Pond is a small pond located adjacent to Black Pond Picnic Area. It is stocked with rainbow trout.

Cow Creek Reservoir is a small pond that was used for recreation and is adjacent to Cow Creek Campground. The reservoir has a leak and is no longer used for recreation.

Browns Pond is used for stock watering and has a potential for fishery uses.

Rabbit Creek Dam is stocked with sun fish and bass and is used for recreational purposes.

Road Draw Dam is used as a stock pond.

Schleichert DU Dam is used as a stock pond and was constructed by Ducks Unlimited for wildlife nesting habitat.

Middle Creek Dam is a major recreation draw know as Hyalite Reservoir used for many recreational uses.

Mystic Dam is a hydroelectric dam and also used for recreation purposes.

Glacier Dam is used for irrigation purposes as well is a destination for recreational uses.

Funding

There is no specific funding set aside for maintenance of dams. Maintenance is completed as part of normal operations and also with project specific funding.

Trends and Drivers

The Forest Service will continue to maintain these structures in working condition and will continue to work with other agencies regarding their operations. The Forest Service will continue to inspect these structures in compliance with the designated frequency.

Information Needs

INFRA module for dams seems to have many data gaps and is in need of correcting the deficiencies.

Aviation

Existing Condition

There is one landing strip located within the planning area at the West Yellowstone smoke jumper base. There are currently discussions as to the viability of the base and where it may be located in the future.

Key Benefits to People

Public use on National Forest System lands is increasing, as is the population of Montana, specifically in Billings and Bozeman, two of the larger cities in Montana. There is a greater demand for services as well as greater degradation of the road system from the increased use. This trend is expected to continue. There will continue to be a need to provide access for multiple uses including mining, timber, grazing and recreation.

The infrastructure is very important for the quality of life for those visiting the Custer Gallatin National Forest. Maintaining and expanding the infrastructure to meet the needs of the forest users is important to the local economies and quality of life for those living in surrounding communities.

Key Findings

The ability of the Custer Gallatin National Forest to maintain its current infrastructure is at risk of being unsustainable. Much of the infrastructure on the Custer Gallatin is old and in continual need of routine maintenance. The backlog of required large maintenance repairs has perpetually increased, and is currently valued at several million dollars. Funding levels have decreased in recent years, while the cost to perform maintenance has increased.

The inability to adequately maintain existing infrastructure could result in negative impacts on the management of the forest resources. Closure of infrastructure (which could include roads, administrative facilities, and campgrounds) could result in reduced access, recreation services, and enjoyment by the public. Deterioration of infrastructure (in the case of roads, dams, and utilities) could result in unsafe conditions for the public and the Forest Service workforce, as well as ecological damage to the Custer Gallatin.

A Forest Service program that prioritizes maintenance opportunities, utilizes alternative funding sources, and seeks alternative methods and opportunities to repair and maintain its infrastructure is required to address the risk of not being able to provide a safe and properly maintained infrastructure and access to services and forest users.

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